IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for synchronizing the phase of a code available at a receiving unit with the phase of a corresponding code of which samples are received at said receiving unit, ~~which synchronization comprises~~comprising:

    comparing ~~a~~ said received code sample with different samples of said available code at said receiving unit, and

    shifting the respective sample of said available code ~~being shifted~~ in phase for each comparison by a predetermined amount until a correspondence with said received code sample is determined or until ~~an~~ a measurement related interrupt of said synchronization occurs,

    wherein said synchronization is continued after ~~an~~the measurement related interrupt with a newly received code sample and with available code samples proceeding from the code phase of said available code reached in said synchronization before said measurement related interrupt.

2. (Currently Amended) A The method according to claim 1, wherein a specific code phase of the available code is determined after ~~an~~said measurement related interrupt by shifting the available code employed before the measurement related interrupt by an amount corresponding to the time elapsed between the time of reception of the last code sample before said measurement related interrupt and the time of reception of the new code sample after said measurement related interrupt.

3. (Currently Amended) A The method according to claim 2, wherein said synchronization is equally ended when a comparison has been carried out without success for all code phases that can be reached with predetermined shifts.

4. (Currently Amended) A The method according to claim 3, wherein said code phase of said available code is shifted by a first predetermined amount until code

samples spanning the entire code have been checked, and wherein, in case no correspondence between ~~a~~ said received code sample and an available code sample is determined with the resulting code phases, said code phase is shifted once by a different predetermined amount for further comparisons.

5.   (Currently Amended) ~~A~~ The method according to claim 4, wherein said code samples are received at said receiving unit by a communication network in form of a pilot signal during an Idle Period, Down Link ~~(IPDL)~~.

6.   (Currently Amended) ~~A~~ The method according to claim 5, wherein ~~a~~ said received code sample is stored in a dedicated random access memory ~~(RAM)~~, from which it is retrieved for said synchronization calculations.

7.   (Currently Amended) ~~A~~ The method according to claim 6, wherein said comparison is carried out by a matched filter performing correlation calculations on a respective pair of received and available code samples.

8.   (Currently Amended) A receiving unit, comprising:

[[-]] means for providing an available code;

[[-]] means for receiving samples of a code via the air interface; and

   means for synchronizing a phase of said available code with a phase of the received code sample;

   wherein said means for synchronizing are for comparing said received code sample with different samples of said available code;

   wherein said means synchronizing are for shifting the respective sample of said available code in phase for each comparison by a predetermined amount until a correspondence with said received code sample is determined or until a measurement related interrupt of said synchronization occurs; and

   wherein said synchronization is continued after the measurement related interrupt with a newly received code sample and with available code samples

proceeding from the code phase of said available code reached in said synchronization before said measurement related interrupt.

[[-]] means for synchronizing the phase of the available code with the phase of a code of which samples are received by said means for receiving code samples via the air interface according to the method of claim 1.

9.   (Currently Amended) A-The receiving unit according to claim 8, which is a location measurement unit (LMU) for a location system.

10.   (Currently Amended) A mobile communication system, comprising:

a transmitting unit for transmitting a coded signal, and

a receiving unit comprising: according to claim 8

   a storing portion for providing an available code,

   a receiver for receiving samples of a received code via an air interface, and

   a synchronizing portion for synchronizing a phase of said available code with a phase of the received code sample,

wherein said synchronizing portion is configured to compare said received code sample with different samples of said available code,

wherein said synchronizing portion is configured to shift the respective sample of said available code in phase for each comparison by a predetermined amount until a correspondence with said received code sample is determined or until a measurement related interrupt of said synchronization occurs,

wherein said synchronization is continued after the measurement related interrupt with a newly received code sample and with available code samples proceeding from the code phase of said available code reached in said synchronization before said measurement related interrupt.

11.   (Currently Amended) A-The mobile communication system according to claim 10, which is a wideband code division multiple access (WCDMA) system.

12. (Currently Amended) A The method according to claim 1, wherein said synchronization is equally ended when a comparison has been carried out without success for all code phases that can be reached with predetermined shifts.

13. (Currently Amended) A The method according to claim 1, wherein said code phase of said available code is shifted by a first predetermined amount until code samples spanning the entire code have been checked, and wherein, in case no correspondence between a received code sample and an available code sample is determined with the resulting code phases, said code phase is shifted once by a different predetermined amount for further comparisons.

14. (Currently Amended) A The method according to claim 1, wherein said code samples are received at said receiving unit by a communication network in form of a pilot signal during an Idle Period, Down Link (IPDL).

15. (Currently Amended) A The method according to claim 1, wherein a said received code sample is stored in a dedicated random access memory (RAM), from which it is retrieved for said synchronization calculations.

16. (Currently Amended) A The method according to claim 1, wherein said comparison is carried out by a matched filter performing correlation calculations on a respective pair of received and available code samples.

17. (New) A receiving unit, comprising:
    a storing portion for providing an available code,
    a receiver for receiving samples of a received code via an air interface, and
    a synchronizing portion for synchronizing a phase of said available code with a phase of the received code sample,
    wherein said synchronizing portion is configured to compare said received code sample with at least one sample of said available code,

wherein said synchronizing portion is configured to shift the respective sample of said available code in phase for each comparison by a predetermined amount until a correspondence with said received code sample is determined or until a measurement related interrupt of said synchronization occurs,

wherein said synchronization is continued after the measurement related interrupt with a newly received code sample and with available code samples proceeding from the code phase of said available code reached in said synchronization before said measurement related interrupt.